

Appl. No. 10/807/157
Amendment dated: November 29, 2006
Reply to OA of: August 29, 2006

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REMARKS

This is in response to the Official Action of August 29, 2006 in connection with the above-identified application. Applicants have amended the claims of the instant application in order to more precisely define the scope of the present invention, taking into consideration the outstanding Official Action.

Specifically, Applicants have canceled claims 1-5 and 15, which are the claims directed to the non-elected invention. Cancellation of these claims is made without prejudice or disclaimer, and Applicants reserve all rights to file a divisional or continuation application or applications directed to the non-elected subject matter.

In light of the cancellation of claims 1-5 and 15, Applicants have amended claims 6 and 7 to recite a manufacturing method comprising synthesizing ceramic powder by a non-wet synthesis method and heat-treating the synthesized ceramic powder in a solution in place of reciting the manufacturing method of claim 1 or 2.

Finally, Applicants note that claims 6 and 7 have also been amended to incorporate the subject matter recited in original claim 8 and claims 9 and 10 have been amended to incorporate the subject matter of original claim 11. In light of these amendments, claims 8 and 11 have been canceled from the application.

Applicants now respectfully submit that all claims currently pending in the instant application are in full compliance with 35 U.S.C. §112 and are allowable over the reference of record.

Turning now to the rejections set forth in the Official Action, Applicants have carefully considered the rejection of claims 6-14 under 35 U.S.C. §112, second paragraph, as being indefinite and provide the following comments in response.

The Official Action begins by urging that it is unclear whether the claimed "perovskite structure" is limited by the definition provided in the Specification in the paragraph bridging pages 7 and 8. As an initial matter, Applicants note that the paragraph bridging pages 7 and 8 does not define the "perovskite structure", but rather, discusses the "oxalate method". Applicants will assume for purposes of this response that the Official Action intended to cite the paragraph bridging pages 6 and 7 of the

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Specification, as cited later in the Official Action. If this assumption is incorrect, Applicants respectfully request clarification in the next Official Action.

As understood by Applicants, the Official Action urges that it is unclear whether the claimed "perovskite structure" is limited by the definition on pages 6 and 7, i.e., whether the "perovskite structure" must be an ABO_3 structure wherein A and B are only the elements listed at pages 6 and 7. Further, if the "perovskite structure" is to be limited by this definition, the Official Action also urges that it is unclear if the definition is limited to only those specific elements set forth in the Specification for A and B or whether use of the term "e.g." broadens the available elements for A and B.

To clarify this issue, Applicants note that the "perovskite structure" claimed in the instant application is intended to be defined as an oxide in a form of ABO_3 as discussed at pages 6 and 7 of the Specification. However, the disclosure that A may be "e.g., Ba, Sr, Ca, Pb, and/or one or more rare earth element including Y" and that B may be "e.g., Ti, Sn, Zr, Nb, W and/or Sb" is not intended to be an exhaustive list that limits the elements which may be used for A and B. The use of the term "e.g." indicates that the lists of elements provided in the specification are nearly exemplary and that the "perovskite structure" claimed may include other elements as substitutes. Thus, Applicants respectfully submit that the original Specification clearly sets forth that the "perovskite structure" includes all oxides in the form of ABO_3 .

The Official Action also urges that it is unclear what is meant by the phrase "ratio of area occupied by holes" as used in claims 6, 7, 9 and 10. In response, Applicants note that Specification clearly defines this term at page 30, lines 4 through 8. This portion of the Specification states that the "ratio of the area of the holes is determined by observing ceramic powder by using a TEM (transmission type electron microscope) and calculating a ratio of area of the holes to a total area of the particles represented two-dimensionally" (emphasis added). Thus, Applicants respectfully submit that this term is clearly defined in the originally filed Specification.

Finally, with respect to the §112, second paragraph, rejection, the Official Action urges that in claims 6 and 7 it is unclear what is meant by "claim 1 or 2" since these

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claims are not pending. As discussed above, Applicants have amended claims 6 and 7 to replace the phrase "claim 1 or 2" with the phrase "a manufacturing method comprising synthesizing ceramic powder by a non-wet synthesis method and heat-treating the synthesized ceramic powder in a solution". Accordingly, Applicants respectfully submit that claims 6 and 7 are not indefinite.

In view of the above comments, Applicants respectfully request that the §112, second paragraph, rejection of claims 6-14 be withdrawn.

Applicants turn now to the rejection of the claims over the prior art set forth in the outstanding Official Action. The rejection of claims 6, 9 and 12-14 under 35 U.S.C. §102(b) as being anticipated by Miyoshi (US Pub. Pat. App. No. 2001/0026865) has been carefully considered but is most respectfully traversed in light of the amendments to the claims and following comments.

Applicants wish to direct the Examiner's attention to MPEP § 2131 which states that to anticipate a claim, the reference must teach every element of the claim.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed.Cir. 1990).

To begin with, Applicants note that the §102(b) rejection over Miyoshi is applied to claims 6, 9 and 12-14, but does not include the subject matter recited in claims 8, 10 or 11. Additionally, no other prior art rejections are set forth in the outstanding Official Action. Accordingly, Applicants respectfully submit that, but for the §112, second paragraph, rejection of these claims, the subject matter recited in claims 8, 10 and 11 is allowable.

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As discussed in detail above, Applicants respectfully submit that the §112, second paragraph, rejection of claims 6-14 has been overcome. Thus, Applicants respectfully submit that claims 8, 10 and 11 now recite allowable subject matter and would be allowable if rewritten in independent format including all of the limitations of the base claim and any intervening claims.

Accordingly, and as discussed above, Applicants have amended claims 6 and 9 to incorporate the subject matter recited in original claims 8 and 11, respectively. In light of these amendments, claims 6 and 9 now recite that a particle diameter distribution of the ceramic powder is less than 30%, the particle diameter distribution being standard deviation/mean diameter particles. The Official Action impliedly acknowledges, and a careful review of the reference confirms, that Miyoshi fails to disclose this element of the claims. Thus, because Miyoshi fails to disclose each and every element of claims 6 and 9, Applicants respectfully submit that the reference is incapable of properly supporting a §102(b) rejection according to the guidelines set forth in MPEP §2131. Applicants therefore respectfully request that the §102 rejection of claims 6 and 9 over Miyoshi be withdrawn.

Furthermore, as claims 12-14 depend from claim 9 or 10, Applicants respectfully submit that these claims are allowable over the Miyoshi reference for the same reasons as provided above with respect to claim 9. Accordingly, Applicants respectfully request that the §102 rejection of claims 12-14 over Miyoshi also be withdrawn.

Finally, with respect to the §102(b) rejection of claim 6 over Miyoshi, Applicants note that US Pub. Pat. App. No. 2001/0026865 is a corresponding application of the application discussed in detail the Background of the Invention section of the originally filed Specification. The Miyoshi reference discloses a perovskite-structured oxide which is synthesized using starting materials, e.g., TiO_2 and $BaCO_3$, by wet mixing (see, e.g., paragraphs [0048], [0049], [0051], [0057], [0063], [0070], [0078] and [0086]). In other words, the perovskite-structured oxide in Miyoshi is obtained via a wet synthesis method. In the wet method, OH groups enter a crystal lattice during a synthesizing process, which results in a low crystallinity and degraded dielectric characteristics.

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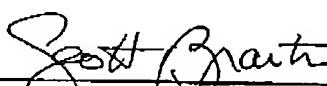
Although the synthesized ceramic powder is reheated in the atmosphere for the purpose of removing residual OH groups in the crystal lattice structure, the reheating causes an increase in a volume ration of the portion that does not contribute to the dielectric constant (see, e.g. page 2, lines 9 through 21 of the Specification).

These problems are avoided by the present invention, which uses a non-wet synthesis method as recited in claim 6. The perovskite-structured ceramic powder claimed in claim 6 is manufactured by a non-wet synthesis method, and therefore the present invention is different from the invention disclosed in Miyoshi. Accordingly, because Miyoshi fails to disclose this feature of claim 6, Applicants respectfully submit that the reference cannot properly support a §102 rejection of claim 6. Therefore, Applicants respectfully request that this rejection be withdrawn.

In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,
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